

for each of the calibration dye spots, generating a dye image containing at least one of the calibration dye spots for each of a plurality of output channels;

for each of the calibration dye spots, measuring an output of each of the output channels to obtain output measurements;

computing a set of correction factors from the output measurements; and

D1
applying the set of correction factors to data obtained from the generated microarray images containing spots having three or more dyes with excitation or emission spectra to obtain crosstalk-corrected data.

D2 Sub 1-2
10. (Thrice Amended) A system for automatically creating crosstalk-corrected data of a microarray wherein crosstalk is caused by overlapping dye emission spectra, the system comprising:

a microarray substrate having three or more calibration dye spots, each of the calibration dye spots comprising a single pure dye;

an imager having a plurality of output channels wherein for each of the calibration dye spots the imager generates a dye image containing at least one of the calibration dye spots for each of the output channels;

means for measuring an output of each of the output channels for each of the calibration dye spots to obtain output measurements;

means for computing a set of correction factors from the output measurements;

and

means for applying the set of correction factors to data obtained from the generated microarray images containing spots having three or more dyes with excitation or emission spectra to obtain crosstalk-corrected data.